

Manufacturing & Production Engineering MCQ Question Answer

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Question: 1. The soft grade grinding wheels are denoted by the letters

- Option A. A to H
- Option B. I to P
- Option C. Q to Z
- Option D. A to P

Question: 2. Gears can be best produced on mass production by

- Option A. Shaping
- Option B. Casting
- Option C. Forming
- Option D. Hobbing

Question: 3. The hardness of a grinding wheel is specified by

- Option A. Brinell hardness number
- Option B. Rockwell hardness number
- Option C. Vickers pyramid number
- Option D. Letter of alphabet

Question: 4. In drilling operation, the metal is removed by

- Option A. Shearing
- Option B. Extrusion
- Option C. Shearing and extrusion
- Option D. Shearing and compression

Question: 5. The width of cutting edge of a parting off tool varies from

- Option A. 3 to 12 mm
- Option B. 5 to 20 mm
- Option C. 8 to 30 mm
- Option D. 15 to 40 mm

Question: 6. The chuck used for setting up of heavy and irregular shaped work should be

- Option A. Four jaw independent chuck
- Option B. Three jaw universal chuck
- Option C. Magnetic chuck
- Option D. Drill chuck

Question: 7. The common welding error that occurs due to shrinkage of weld metal, faulty clamping of parts, faulty penetration or overheating at joints is called?

- Option A. Distortion
- Option B. Warping
- Option C. Porous weld
- Option D. Poor fusion

Question: 8. The method of centre less grinding used to produce taper is

- Option A. In-feed grinding
- Option B. Through feed grinding
- Option C. End feed grinding
- Option D. Any one of these

Question: 9. The average cutting speed for turning mild steel with a high speed steel tool is

- Option A. 15 to 19 m/min
- Option B. 25 to 31 m/min
- Option C. 60 to 90 m/min
- Option D. 90 to 120 m/min

Question: 10. The actual feed in centerless grinders is given by (where d = Dia. of regulating wheel, n = Revolutions per minute, and α = Angle of inclination of wheel)

- Option A. πd
- Option B. πdn
- Option C. $\pi dn \sin \alpha$
- Option D. $\pi dn \cos \alpha$

Question: 11. A CNC vertical milling machine has to cut a straight slot of 10 mm width and 2mm depth by a cutter of 10 mm diameter between points (0,0) and (100,100) on the XY plane (dimensions in mm). The feed rate used for milling is 50 mm/min, milling time for the slot (in seconds) is

- Option A. 120
- Option B. 170
- Option C. 180
- Option D. 240

Question: 12. The process of removing metal by a cutter which is rotated against the direction of travel of workpiece, is called

- Option A. Up milling
- Option B. Down milling
- Option C. Face milling
- Option D. End milling

Question: 13. The high cutting speed and large rake angle of the tool will result in the formation of

- Option A. Continuous chips
- Option B. Discontinuous chip

Option C. Continuous chips with built up edge

Option D. None of these

Question: 14. When the tool moves parallel to the lathe axis, the movement is termed as

Option A. Cross feed

Option B. Angular feed

Option C. Longitudinal feed

Option D. Any one of these

Question: 15. In machining metal, cutting force at the cutting edge is measured by a

Option A. Wattmeter

Option B. Dynamometer

Option C. Hydrometer

Option D. Pyrometer

Question: 16. In drilling aluminium, a drill with

Option A. Zero helix angle is used

Option B. Low helix angle is used

Option C. High helix angle is used

Option D. Any helix angle can be used

Question: 17. The hole to be drilled for tapping is _____ the outside diameter of the thread on the tap.

Option A. Equal to

Option B. Smaller than

Option C. Greater than

Option D. None of these

Question: 18. The crystal structure of austenite is

Option A. Body centred cubic

Option B. Base centred cubic

Option C. Hexagonal closed packed

Option D. Body centred tetragonal

Question: 19. In transverse grinding

Option A. The work is reciprocated as the wheel feeds to produce cylinders longer than the width of wheel face

Option B. The work rotates in a fixed position as the wheel feeds to produce cylinders equal to or shorter than the width of wheel face

Option C. The work is reciprocated as the wheel feeds to produce cylinders shorter than the width of wheel face

Option D. The work rotates in a fixed position as the wheel feeds to produce cylinders longer than the width of wheel face

Question: 20. The grinding operation is a

- Option A. Shaping operation
- Option B. Forming operation
- Option C. Surface finishing operation
- Option D. Dressing operation

Question: 21. The carbide tools operating at very low cutting speeds (below 30 m/min)

- Option A. Reduces tool life
- Option B. Increases tool life
- Option C. Have no effect on tool life
- Option D. Spoils the work piece

Question: 22. The velocity of tool along the tool face is known as

- Option A. Shear velocity
- Option B. Chip velocity
- Option C. Cutting velocity
- Option D. Mean velocity

Question: 23. A hole is of dimension $\phi = 9 + 0^{+0.015}$ mm. The corresponding shaft is of dimension $\phi = 9 + 0.001^{+0.010}$ mm. The resulting assembly has

- Option A. Loose running fit
- Option B. Close running fit
- Option C. Transition fit
- Option D. Interference fit

Question: 24. The method of grinding used to produce internal cylindrical holes and tapers, is

- Option A. Internal cylindrical grinding
- Option B. Form grinding
- Option C. External cylindrical grinding
- Option D. Surface grinding

Question: 25. Which of the following statement is wrong as regard to down milling?

- Option A. It can not be used on old machines due to backlash between the feed screw of the table and the nut.
- Option B. The chips are disposed off easily and do not interfere with the cutting.
- Option C. The surface milled appears to be slightly wavy.
- Option D. The coolant can be poured directly at the cutting zone where the cutting force is maximum.

Question: 26. Which of the following parameters influence the axial feed rate in centerless grinding?

- Option A. Regulating wheel diameter

- Option B. Speed of the regulating wheel
- Option C. Angle between the axes of grinding and regulating wheels
- Option D. All of the above

Question: 27. Broaching is applied for machining

- Option A. Internal and external surfaces
- Option B. Round or irregular shaped holes
- Option C. External flat and contoured surfaces
- Option D. All of these

Question: 28. A process of removing metal by pushing or pulling a cutting tool is called

- Option A. Up milling
- Option B. Down milling
- Option C. Forming
- Option D. Broaching

Question: 29. The rake angle required to machine brass by high speed steel tool is

- Option A. 0°
- Option B. 10°
- Option C. 20°
- Option D. 100°

Question: 30. Side rake angle of a single point cutting tool is the angle

- Option A. By which the face of the tool is inclined towards back
- Option B. By which the face of the tool is inclined sideways
- Option C. Between the surface of the flank immediately below the point and a plane at right angles to the centre line of the point of the tool
- Option D. Between the surface of the flank immediately below the point and a line drawn from the point perpendicular to the base

Answer Sheet

1	A	
2	D	
3	D	
4	C	
5	A	
6	A	
7	B	
8	C	
9	B	
10	C	
11	B	
12	A	
13	A	
14	C	
15	B	
16	C	
17	B	
18	B	
19	A	
20	C	
21	A	
22	B	
23	C	
24	A	
25	C	
26	D	
27	D	
28	D	
29	A	
30	B	